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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/550,463

06/14/2006

Alfredo Gambirasio

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22852

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11/20/2006

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EXAMINER

ROJAS, OMAR R

ART UNIT

PAPER NUMBER

2874

DATE MAILED: 11/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/550,463	Applicant(s) GAMBIRASIO ET AL.	
	Examiner Omar Rojas	Art Unit 2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2006.  
 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.  
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 19-36 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
 6) ☒ Claim(s) 19-36 is/are rejected.  
 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
 10) ☒ The drawing(s) filed on 26 September 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:  
         1. ☐ Certified copies of the priority documents have been received.  
         2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
         3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                        |                                                                        |
|----------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)                |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                           |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application      |
| Paper No(s)/Mail Date <u>09/26/2005, 06/14/2006</u> .                                  | 6) <input checked="" type="checkbox"/> Other: <u>Detailed Action</u> . |

## **DETAILED ACTION**

### ***Response to Amendment***

1. With regards to the amendment filed on September 26, 2005, all the requested changes to the claims and specification have been entered. Claims 19 to 36 are pending.

### ***Information Disclosure Statement***

2. The prior art documents submitted by Applicant(s) in the Information Disclosure Statement(s) ("IDS") filed on September 26, 2005 and June 14, 2006 have all been considered and made of record (note the attached copy of form(s) PTO-1449).

### ***Drawings***

3. The drawings are objected to because the reference numerals and drawings in Figures 7a-7b are obscured. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Specification*

4. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

*Claim Rejections - 35 USC § 102*

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

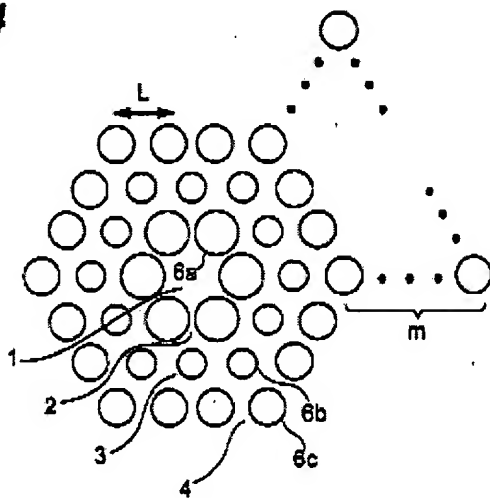
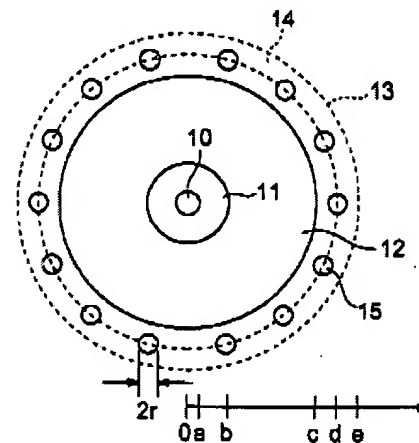
(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 19-21 and 23-36 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by EP 1118887 A2 to Sumitomo Electric Industries, Ltd (hereinafter "Sumitomo") cited by an IDS.**

*In re* claims 19, 20, 23, 24, 32, and 36, the Sumitomo document discloses a microstructured optical fibre (e.g., Fig. 14) comprising a core region 10 with a material having a refractive index  $n_0$  and a microstructured region 13 surrounding the core region 10 with a background material having a refractive index  $n_{31}$  which is lower than the refractive index  $n_0$ , the microstructured region comprising a plurality of microstructures 15 having a refractive index  $n_{32}$  different from the refractive index  $n_{31}$ , the distance  $L$  between the centers of any couple of adjacent

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microstructures 15 ranging from about 1.48  $\mu\text{m}$  to about 6.2  $\mu\text{m}$ , thereby overlapping the range between  $\lambda_p$  and  $1.5 \lambda_p$  as claimed. See ¶¶ [053],[054],[061], and [076]-[080]. Figures 4 and 14 of Sumitomo are reproduced below.

**Fig.4****Fig.14**

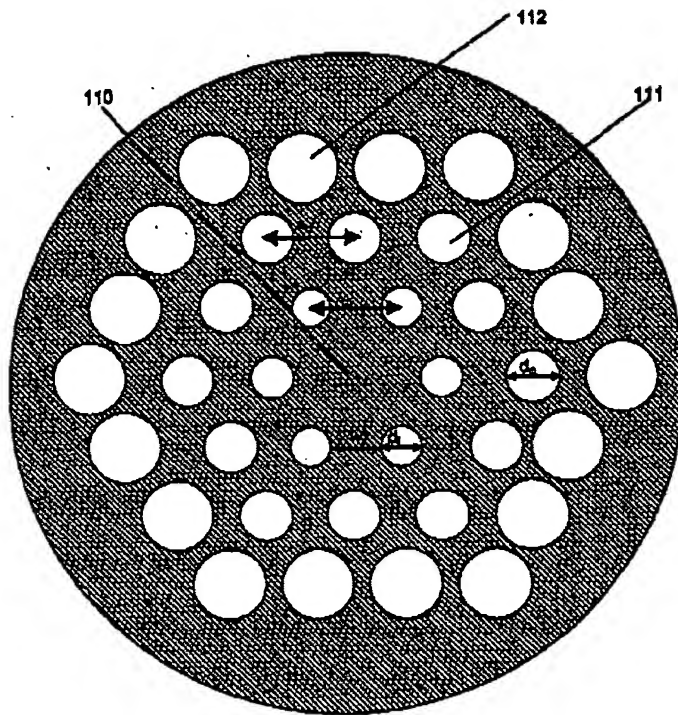
*In re* claims 21, 25-31, and 33-35, the recited limitations are clearly disclosed by Sumitomo in view of the previous remarks and Fig. 14.

7. **Claims 19-36 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by US 6,856,742 B2 to Broeng et al. ("Broeng").**

*In re* claims 19, 20, 23, 24, 32, and 36, Broeng discloses a microstructured optical fibre (e.g., Figs.10-14) comprising a core region 104/110/120 with a material having a refractive index and a microstructured region 101 surrounding the core region with a background material having a refractive index which is lower than the refractive index of the core region (col. 9, lines 3-7), the microstructured region comprising a plurality of microstructures 110/111/112/121/122 having a refractive index different from the refractive index of the background material (col. 14, lines 29-

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31), the distance  $\Lambda$  between the centers of any couple of adjacent microstructures overlapping the range between  $\lambda_p$  and  $1.5 \lambda_p$  as claimed. See Broeng at columns 17-20. Figure 11 of Broeng is reproduced below.

**Fig. 11**

*In re* claims 21, 22, 25-31, and 33-35, the recited limitations are clearly disclosed by Broeng in view of the previous remarks and columns 17-20.

### ***Conclusion***

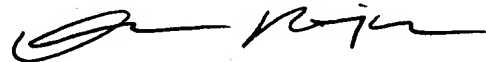
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,512,871 B2 to Kumel et al. also anticipates one or more of the present claims but is not being applied as prior art at this time.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omar Rojas whose telephone number is (571) 272-2357. The examiner can normally be reached on Monday-Friday (12:00PM-8:00PM).


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rod Bovernick, can be reached on (571) 272-2344. The official facsimile number for regular and After Final communications is (571) 273-8300. The examiner's RightFAX number is (571) 273-2357.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Omar Rojas  
Patent Examiner  
Art Unit 2874

or  
November 13, 2006



Rodney Bovernick  
Supervisory Patent Examiner  
Technology Center 2800